

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated May 10, 2006 (hereinafter Office Action) have been considered. Claims 1-63 are now pending in the application. Claims 1, 15, 24, 35, 39, 52, 57, 59, 61, and 62 have been amended. Duplicatively numbered claim 44 has been canceled. New claim 63 has been added. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

The Examiner has objected to the numbering of the claims in the application because two claims numbered 44 were presented. Applicant has canceled the erroneously numbered claim 44 and added new claim 63 which recites the limitations of the canceled claim.

Claims 1, 3-4, 6, 8-9, 11-12, 15, 17-30, 32, 34-39, 41-42, 45-47, 52, 55-57, 79 and 61-62 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,456,881 to *Bornzin et al.* (hereinafter "*Bornzin*").

Applicant respectfully disagrees with the Examiner's characterization of *Bornzin* and the contention that *Bornzin* anticipates these claims. Applicant respectfully asserts that several features recited in the rejected claims are not disclosed in *Bornzin*.

To anticipate a claim, the asserted reference must clearly and unequivocally disclose every element of the claimed invention. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. All claim elements, and their limitations, must be found in the prior art reference to maintain a rejection based on 35 U.S.C. §102.

Applicant has amended independent claims to 1, 15, 24, 35, 39, 52, 57, 59, 61, and 62 to enhance an understanding of these claims, and not for reasons necessitated by the prior art or record. Specifically, Applicant has amended the claims to enhance an understanding that detection of fusion or discrimination between fusion, capture and non-capture is performed, according to Applicant's invention, based on a single cardiac signal.

The amendments to the claims recite an express feature that was already inherent in the claims, so the amendments are not narrowing. Several decisions by the Federal Circuit have also suggested that an amendment that only makes express a recitation of a feature that was already inherent in the original claim is not a narrowing of the scope of the properly construed claim. *TurboCare v. General Electric Co.*, 264 F.3d 1111 (Fed. Cir. 2001); *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354 (Fed. Cir. 2001) and *Interactive Pictures Corp. v. Infinite Pictures, Inc.*, 274 F.3d 1371 (Fed. Cir. 2001).

Applicant's independent claims 1, 15, 24, 35, 39, 52, 57, 59, 60, and 62 recite, in some form, an approach for discriminating between different types of cardiac pacing responses or detecting fusion based on a single cardiac signal sensed from a vector that is different from the pacing vector. *Bornzin*, in contrast teaches a two channel approach to discriminating between fusion and non-capture. *Bornzin*'s process involves sensing cardiac signals from both a ventricular channel and an atrial channel (see, Figure 3, element 310). If the ventricular channel signal indicates non-capture, the atrial channel signal is analyzed. Discrimination between non-capture and fusion is determined based on the atrial channel signal. Thus, *Bornzin* teaches a two-signal approach as opposed to the single signal approach recited in Applicant's claims. For at least these reasons, independent claims 1, 15, 24, 35, 39, 52, 57, 59, 61, and 62, and all claims dependent therefrom are not anticipated by *Bornzin*.

Claims 2, 16, 40, 53, 58 and 60 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Bornzin* in view of U.S. Patent No. 5,522,860 to *Molin et al.* (hereinafter "*Molin*"). Claims 5, 7, 31 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,456,881 to *Bornzin* in view of U.S. Patent No. 6,738,669 to *Sloman et al.* (hereinafter "*Sloman*"). Claims 10, 43, 44 (both claims 44) and 54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Bornzin*. Claims 13-14 and 48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Bornzin* in view of *Sloman*. Claims 50-51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Bornzin* in view of U.S. Patent No. 4,878,497 to *Callaghan et al.* (hereinafter "*Callaghan*").

Applicant respectfully asserts that the cited combinations fail to support *prima facie* obviousness of the rejected claims. Three criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or combination of references, must teach or suggest all the claim limitations. MPEP § 2142.

Each of the rejections under 35 U.S.C. §103(a) rely on *Bornzin* as the primary reference and uses additional references to supply missing features recited in Applicant's dependent claims. Applicant reasserts the arguments made above with respect to *Bornzin*'s failure to teach or suggest the limitations of Applicant's independent claims. The dependent claims include all of the features of the independent claims from which they depend along with additional features. The third criterion of *prima facie* obviousness recited above requires that the prior art references upon which the rejection is based must teach or suggest all of the claim limitations. The reference combinations cited in the above rejections fail to support *prima facie* obviousness, at least because the combinations do not teach or suggest all of the claim limitations of the independent claims which are incorporated as elements of the rejected dependent claims. Thus, these dependent claims are patentable over the asserted combinations.

Applicant notes that with regard to claims 10, 43, 44 and 54, the Examiner states that various features would have been a matter of design choice because, according to the Examiner, the Applicant "has not disclosed that [the feature] solves any stated problem or is for any particular purpose." Applicant is unaware of any requirement that a burden on the Applicant to state an advantage for each feature recited in the claims. Applicant is unaware of any authority that supports the Examiner's position that if an advantage or use is not stated for a dependent claim element, the element is considered to be "an obvious matter of design choice." Applicant respectfully requests that the Examiner provide authority for this position.

Notwithstanding the immediately preceding paragraph, the disclosure includes various advantages for the use of shock channel or coil electrodes for sensing. For example, one advantage is referenced in the disclosure at page 22 in connection with the discussion on temporal separation of the cardiac response signal and the pacing artifact signal that can be achieved using various electrodes.

Claims 24, 28, 38 41 and 56 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11 of copending application no. 10/734,599. Claims 24-34, 38, 41 and 56 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-94 of copending application no. 70/733,869. (Applicant assumes that the Examiner intended for this rejection to be based on copending application to by 10/733,869 instead of 70/733,869 and is responding accordingly.)

Applicant respectfully asserts that, in view of the amendments to the claims and arguments made above, the Examiner is compelled to withdraw the substantive art rejections of the claims. Once withdrawn, the only rejection remaining in the subject application is the provisional obviousness-type double patenting rejections. In view of MPEP § 804 I(B), Applicant respectfully requests that the provisional obviousness-type double patenting rejections be withdrawn and that the subject application be permitted to issue as a patent.

It is to be understood that Applicant does not acquiesce to Examiner's characterization of the asserted art or Applicant's claimed subject matter, nor of the Examiner's application of the asserted art or combinations thereof to Applicant's claimed subject matter. Moreover, Applicant does not acquiesce to the Examiner's statements or conclusions concerning what would have been obvious to one of ordinary skill in the art, obvious design choices, common knowledge at the time of Applicant's invention, officially noticed facts, and the like. Applicant reserves the right to address in detail the Examiner's characterizations, conclusions, and rejections in future prosecution.

Authorization is given to charge Deposit Account No. 50-3581 (GUID.160PA) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the undersigned attorney of record invites the Examiner to contact her to discuss any issues related to this case.

Respectfully submitted,

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